DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 611 and 675

[Docket No. 901199–1021]

Groundfish of the Bering Sea and Aleutian Islands

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Final notice of initial specifications of groundfish for 1991.

SUMMARY: NOAA announces final specifications of total allowable catches (TACs) and initial apportionments for each category of groundfish in the Bering Sea and Aleutian Islands (BSAI) management area for the 1991 fishing year. This action is necessary to establish harvest limits for groundfish in the 1991 fishing year. This action is based on public comments, the best available information on the biological condition of groundfish stocks, the socioeconomic condition of the fishing industry, and consultation with the North Pacific Fishery Management Council (Council) at its meeting of December 3–7, 1990. The intended effect of this action is the conservation and management of groundfish resources in the BSAI management area.

DATES: Effective at 0001 hours, Alaska Local Time (A.l.t.), January 1, 1991, through 2400 hours, A.l.t., December 31, 1991, or until changed by subsequent notice in the **Federal Register.**

ADDRESSES: The final Stock Assessment and Fishery Evaluation Document for Groundfish Resources in the Bering Sea/Aleutian Islands Region as Projected for 1991 (SAFE report) may be requested from the North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, AK 99510; telephone 907–271–2809.

FOR FURTHER INFORMATION CONTACT: Jay J. C. Ginter, Fishery Management Biologist, NMFS, 907–586–7229.

SUPPLEMENTARY INFORMATION: Groundfish fisheries in the BSAI management area are governed by Federal regulations (at 50 CFR 611.93 and part 675), which implement the Fishery Management Plan for Bering Sea/Aleutian Islands Groundfish (FMP). The FMP was prepared by the Council and approved by the Secretary of Commerce (Secretary) under the Magnuson Fishery Conservation and Management Act (Magnuson Act).

The FMP and implementing regulations require the Secretary, after consultation with the Council, to specify annually the TAC, initial domestic annual harvest (DAH), and initial total allowable level of foreign fishing (TALFF) for each target species and the "other species" category for the succeeding fishing year (§ 675.20(a)(7)). The sum of the TACs must be within the optimum yield (OY) range of 1.4 million to 2.0 million metric tons (mt) (§ 675.20(a)(2)). For 1991, this sum of TACs is equal to 2.0 million mt, as indicated in Table 1.

TABLE 1.—FINAL 1991 TOTAL ALLOWABLE CATCH (TAC) AND APPORTIONMENTS OF GROUNDFISH IN THE BERING SEA (BS) AND ALEUTIAN ISLANDS (AI) MANAGEMENT AREA [1]

Species	TAC	Initial TAC [2]	DAP [3]	JVP [4]	DAH [5]	TALFF [6]
Pollock:	1,300,000	1,105,000	1,105,000	0	1,105,000	0
BS	85,000	72,250	72,250	0	72,250	0
AI	229,000	194,650	194,650	0	194,650	0
Pacific cod	3,100	2,634	2,634	0	2,634	0
Sablefish:	3,200	2,720	2,720	0	2,720	0
BS	24,000	20,400	20,400	0	20,400	0
AI	135,000	114,750	114,750	0	114,750	0
Atka mackerel	90,000	76,500	76,500	0	76,500	0
Yellowfin sole	7,000	5,950	5,950	0	5,950	0
Rock sole	20,000	17,000	17,000	0	17,000	0
Greenland turbot	64,675	54,974	54,974	0	54,974	0
Arrowtooth flounder	4,570	3,885	3,885	0	3,885	0
Other flatfish	10,775	9,159	9,159	0	9,159	0
Pacific ocean perch:	1,670	1,420	1,420	0	1,420	0
BS	4,685	3,982	3,982	0	3,982	0
AI	400	340	340	0	340	0
Other red rockfish [7]:	925	786	786	0	786	0
BS	1,000	850	850	0	850	0
AI	15,000	12,750	12,750	0	12,750	0
Other rockfish [8]:	2,000,000	1,700,000	1,700,000	0	1,700,000	0
BS						
AI						
Squid						
Other species						
Totals						

Notes to Table 1:
[1] Amounts in metric tons; apply to entire BSAI management area unless otherwise specified.
[2] Initial TAC (ITAC)=0.85 of TAC; initial reserve=TAC–ITAC=300,000.
[3] DAP=domestic annual processing.
[4] JVP=joint venture processing.
[5] DAH=DAP + JVP.
[6] TALFF=total allowable level of foreign fishing.
[7] "Other red rockfish" includes shortraker, rougheye, northern and sharpchin.
[8] "Other rockfish" includes *Sebastes* and *Sebastolobus* species except for Pacific ocean perch and the "other red rockfish" species.

A notice specifying preliminary initial TAC, reserve, DAH, and TALFF amounts for the 1991 fishing year was published on November 27, 1990, and comments were invited through December 27, 1990 (55 FR 49311). One written comment was received. It is summarized and responded to below. In addition, oral comments were heard and public consultation with the Council occurred during the Council meeting in Anchorage, Alaska, on December 3–7, 1990. Biological and economic data that became available after preparation of the proposed specifications and Council recommendations made at its December meeting account for differences between

the proposed specifications and those published in this notice.

The specified TACs for each species are based on the best available biological and socioeconomic information. The Council, its Advisory Panel (AP), and its Scientific and Statistical Committee (SSC), at their September and December 1990 meetings, reviewed current biological information about the condition of groundfish stocks in the BSAI management area. This information was compiled by the Council's BSAI groundfish Plan Team and presented in the SAFE report for the BSAI groundfish fisheries in the 1991 fishing year. The Plan Team annually produces such a document as the first step in the process of specifying TACs. The SAFE report contains a review of the latest scientific analyses and estimates of each species' biomass and other biological parameters. From these data and analyses, the Plan Team estimates an acceptable biological catch (ABC) for each species category.

A summary of preliminary ABCs for each species for 1991 and other biological data from the September 1990 draft SAFE report was provided in the notice of proposed 1990 specifications (55 FR 49311, November 27, 1990). The Plan Team's recommended ABCs were reviewed by the SSC, AP, and Council at their September 1990 meetings. Based on the SSC's comments on technical methods and new biological data not available in September, the Plan Team revised its ABC recommendations in the final SAFE report dated November 1990. The revised ABC recommendations were again reviewed by the SSC, AP, and Council at their December 1990 meetings to produce the Council's final ABC estimates. The Council then developed its TAC recommendations to the Secretary based on the final ABCs as adjusted for other biological and socioeconomic considerations. For each species category, the Council adopted final ABCs so that catches at or below that amount would not cause overfishing, as defined by Amendment 16 to the FMP. Each of the Council's recommended TACs for 1991 is equal to or less than the final ABC for each species category. Therefore, the Secretary finds that the recommended TACs are consistent with the biological condition of groundfish stocks.

A principal consideration for the Council in developing its 1991 TAC recommendations was assuring that the sum of the species TACs did not exceed the maximum OY of 2 million mt. In addition, the Council's recommended division of certain TACs between seasons and gear types, as described below, was done according to prescribed procedures. Therefore, the Secretary also finds that the recommended TACs are consistent with socioeconomic goals and objectives of the FMP.

Apportionment of TAC

As required under § 675.20(a)(3), the amount of TAC for each species initially is reduced by 15 percent. The sum of these 15-percent amounts is designated as the reserve. This reserve is not species specific, and any amount of the reserve may be reapportioned to a target species or the "other species" category during the year, providing that such reapportionments do not result in overfishing (§ 675.20(a)(3)).

The remaining 85 percent of TAC is the initial TAC (ITAC). This amount is apportioned between DAH and TALFF such that TALFF for each target species and the "other species" category at the beginning of the year equals the ITAC minus DAH. For 1991, initial TALFF is zero for all species because the DAH equals ITAC.

Each DAH amount is further apportioned between its two components, joint venture processing (JVP) and the expected domestic annual processing (DAP) category, which includes U.S. vessels that process their catch onboard or deliver it to U.S. fish processors. The JVP equals DAH minus DAP to be consistent with the intent of the domestic processor preference amendments to the Magnuson Act. The initial amounts of DAP and JVP are determined by the Director, Alaska Region, NMFS (Regional Director), in consultation with the Council. The initial DAP and JVP amounts for each target species and the "other species" category are based on projected changes in U.S. harvesting and processing capacity and the extent to which U.S. harvesting and processing will occur during the coming year (§ 675.20(a)(4)). The final TACs, ITACs, reserve, and initial apportionments of groundfish between DAP and JVP in the BSAI management area for 1991 are given in Table 1 of this notice. For 1991, initial JVP is zero for all species because the initial DAP equals DAH and ITAC.

Amendment 16 to the FMP (56 FR 2700, January 24, 1991) requires one quarter of the proposed DAP, JVP, and TALFF to be made available on an interim basis for harvest at the beginning of the fishing year (January 1) until superseded by final notice of initial specifications (§ 675.20(a)(7)(i)). Hence, the groundfish harvest specification in Table 1 of this notice supersedes the interim 1991 specifications published in Table 2 of the notice of proposed specifications (55 FR 49311, November 27, 1990).

Pollock Split Season

Amendment 14 to the FMP (56 FR 492, January 7, 1991) requires that the ITAC of pollock be divided into two seasonal allowances (i.e., the roe season, January 1—April 15, and the non-roe season, June 1—December 31) (§ 675.20(a)(2)(ii)). The Council, at its September 1990 meeting, proposed a seasonal split of the pollock ITAC of 25 percent in the roe season and 75 percent in the non-roe season (55 FR 49311, November 27, 1990). At its December 1990, meeting the Council considered nine factors in setting the final seasonal allowances of pollock (Agenda D–3(a-b)(4)) and decided to recommend limiting the pollock catch during the roe season to 441,500 mt in the Bering Sea subarea (Table 2).

TABLE 2.—FINAL ALLOCATION OF THE 1991 POLLOCK TAC BY SEASON [1]

Subarea	TAC [2]	ITAC [3]	Roe season [4]	Non-Roe season [5]
Bering Sea	1,300,000	1,105,000	441,500	663,500
Aleutian Islands	85,000	72,250	72,250	remainder

[1] Amounts are in metric tons.
[2] TAC=total allowable catch.
[3] Initial TAC (ITAC)=0.85 of TAC; 0.15 of TAC is apportioned to reserve.
[4] January I through April 15.
[5] June I through December 31; specified amounts may be increased by any amount of the roe-season allowance that is unharvested after April 15 and any reapportioned amount of the reserve, or may be decreased by any amount harvested in excess of the roe-season allowance and any amount taken incidental to the catch of other species between April 15 and June 1.

In reviewing the Council's recommended seasonal allowance of the pollock ITAC, the Secretary considered how the recommended allowance would achieve one or more of the objectives of Amendment 14. This amendment was intended to resolve four potential problems related to intensive fishing mortality of pollock during the roe season.

The recommended roe-season allowance of the pollock ITAC will prevent an inappropriate or unintended allocation of the pollock TAC among seasons and between industry sectors by limiting the roe-season harvest to about 40 percent of the ITAC of pollock in the Bering Sea subarea. This is consistent with the proportion of the pollock ITAC that was actually harvested by DAH fisheries during the roe season, but without roe-season constraints, in recent years. The pollock harvest during the roe season of 1990 was approximately 37 percent of the ITAC of pollock that year. During the period 1986 through 1989, the Bering Sea pollock harvest in the first 4 months of the fishing year (which is 2 weeks longer than the roe season defined in Amendment 14) averaged 42 percent of the total annual Bering Sea pollock harvest.

As DAP fishing effort increases, there is a trend toward larger DAP pollock harvests earlier in the fishing year. Two reasons for this trend include (1) The high value of pollock roe relative to other pollock products, and (2) the common-property nature of the pollock resource and the open-access management regime give no incentive to delay harvesting. Hence, with a rapidly growing DAP fishing fleet, there is a real potential for a disproportionately large roe-season harvest without a specific seasonal catch limit. In this event, those vessels and processors that have the capacity to catch and process roe-bearing pollock most rapidly would have a competitive advantage over those elements of the industry that conduct slower, more evenly paced operations.

The Secretary finds that the Amendment 14 objective of preventing an inappropriate or unintended allocation of the pollock TAC among seasons and between industry sectors is achieved by the recommended roe-season allowance for Bering Sea pollock and that the specific allowance of 441,500 mt will provide a reasonable balance between roe and non-roe season harvests. The recommended roe-season catch limit will allow production of valuable pollock products while preventing an excessively disproportionate harvest in the roe season.

The Secretary finds also that the roe-season catch limit may help prevent adverse effects on the ecosystem and on future pollock productivity from intensive fishing mortality during the roe season. Although the environmental assessment of alternatives considered for Amendment 14 indicated no clear evidence of significant negative impacts on the ecosystem from intensive fishing during a compressed season, there is uncertainty about the actual effects of such fishing. The complexity of the ecosystem can easily mask any statistical relationship between the abundance of pollock eggs and larvae, and the future abundance of various pollock predators (including the threatened Steller sea lion) and of harvestable stocks of pollock. Given this uncertainty, conservative limitation of the roe-season pollock harvest is reasonable.

The Council made no recommendation to allocate pollock by season in the Aleutian Islands subarea. The entire ITAC of pollock in that subarea will be available for harvest during the roe season, and any amount unharvested on April 15 will be available for harvest during the non-roe season beginning June 1, subject to other harvesting limitations. The Secretary finds this recommendation consistent with the objectives of Amendment 14, given the difficult fishing conditions in the Aleutian Islands subarea. The rugged bottom topography, swift currents, and lower density of pollock in this area can cause fouled fishing gear and low catches relative to those in the Bering Sea subarea. As a result, harvests of pollock in the Aleutian Island subarea typically account for a small proportion of the overall BSAI pollock harvest. The average pollock harvests by DAH fisheries in the Aleutian Islands subarea over the 3 years 1988–1990 are about 3 percent of the total pollock harvest in the BSAI management area. In addition, pollock tend to be harvested later in the Aleutian Islands subarea, usually after the Bering Sea subarea catch limits are attained. Therefore, the rationale for a separate roe-season catch limit in the Bering Sea subarea is not currently applicable to the Aleutian Islands subarea. Amendment 14 provides for specifying a separate roe-season allowance if a need is apparent in the future.

Finally, in adopting the Council's recommended seasonal allowances of the pollock ITACs for the Bering Sea and Aleutian Islands subareas, the Secretary also accepts and adopts the nine findings considered by the Council as required by Amendment 14 in setting seasonal apportionment of the pollock ITACs. The record of these considerations is found at Agenda D–3(a–b)(4) for the December 1990 meeting of the Council and in appendix B of the SAFE report dated November 1990. By basing these findings on the biological and socioeconomic information contained in the final SAFE report dated November 1990, the Secretary finds that the recommended seasonal allowances of pollock are based on and consistent with the types of information required by § 675.20(a)(2)(i).

Sablefish Gear Allocation

Division of the sablefish TACs for the Bering Sea and Aleutian Islands subareas between users of trawl and longline fishing gears is provided for under Amendment 13 to the FMP implemented by a final rule published December 6, 1989 (54 FR 50386). Longline fishing gear is defined at § 675.2 as a stationary, buoyed, and anchored line with hooks or pots (other than king or Tanner crab pots) attached. Gear allocations of TACs are specified at § 675.24(c) in the following proportions:

Bering Sea subarea: trawl gear—50 percent; longline gear—50 percent, and *Aleutian Islands subarea:* trawl gear—25 percent; longline gear—75 percent.

Based on the specifications in Table 1 for the 1991 fishing year, trawl gear and fixed-gear catch limits of sablefish in each subarea are equivalent to the shares of the TACs and ITACs listed in Table 3.

TABLE 3.—FINAL GEAR SHARES OF THE 1991 SABLEFISH TAC

Subarea	Gear	Percent of TAC	Share of TAC (mt)	Share of ITAC (mt) [1]
Bering Sea	Trawl	50	1,550	1,317
Bering Sea	Longline	50	1,550	1,317
Aleutian Islands	Trawl	25	800	680

TABLE 3.—FINAL GEAR SHARES OF THE 1991 SABLEFISH TAC—Continued

Subarea	Gear	Percent of TAC	Share of TAC (mt)	Share of ITAC (mt) [1]
Aleutian Islands	Longline	75	2,400	2,040

[1] Initial TAC (ITAC)=0.85 of TAC, rounded to the nearest whole mt; 0.15 of TAC is apportioned to reserve. The sum of both ITAC gear shares in a subarea is equal to the ITAC for that subarea in Table 1 (adjusted for rounding error).

Pacific Ocean Perch (POP) Complex

The POP category has included a complex of five species of red rockfish (i.e., Pacific ocean perch (*Sebastes alutus*), northern rockfish (*S. polyspinis*), rougheye rockfish (*S. aleutianus*), shortraker rockfish (*S. borealis*), and sharpchin rockfish (*S. zacentrus*)). Stock assessment of the POP complex is based on *S. alutus* because this species is the most abundant of those in the complex, and it is the species for which the most biological data exist (see the SAFE report dated November 1990). The abundance of *S. alutus* appears to have increased from record low levels in the mid-1970s to a level above the biomass that would produce the estimated maximum sustainable yield. However, the other species in the POP complex may not have experienced the same increase. In addition, the fishing industry apparently can target its catches on other species of red rockfish in the POP complex, especially rougheye and shortraker rockfish.

To protect these minor rockfish species in the POP complex from excessive harvest, the Plan Team recommended that the calculated ABC for the POP complex be reduced by 50 percent. Alternatively, the Plan Team suggested splitting the POP complex to allow full exploitation of *S. alutus* and protect the other four red rockfish species. After reviewing the SAFE report and the Plan Team's recommendation, the SSC recommended separate ABCs and management of (1) *S. alutus*; (2) rougheye and shortraker rockfish, and (3) northern and sharpchin rockfish in the Aleutian Islands subarea; and (1) *S. alutus*, and (2) rougheye, shortraker, northern, and sharpchin rockfish in the Bering Sea subarea. The Council adopted the SSC recommendation.

The Secretary agrees with the need to manage the *S. alutus* fishery separately from the other minor species in the POP complex. However, the Secretary is deviating from the Council's recommendation to split the POP complex in the Aleutian Islands subarea into three parts. It is doubtful that rougheye and shortraker rockfish can be adequately differentiated from northern and sharpchin rockfish for purposes of monitoring and enforcing catch limits. Therefore, in this action, the Secretary is splitting the POP complex into two parts in both subareas and specifying TACs and apportionments thereof accordingly. The two parts will be (1) Pacific ocean perch (*S. alutus*) and (2) the other red rockfish species of shortraker, rougheye, northern, and sharpchin rockfish. The species list in Table 1 indicates this change from the proposed specifications.

Prohibited Species Catch (PSC) Limits

Crab and Pacific Halibut

Amendment 16 to the FMP (56 FR 2700, January 24, 1991) established PSC limits for red king crab and *C. bairdi* Tanner crab in specific zones of the Bering Sea subarea and for Pacific halibut throughout the BSAI management area. The bycatch of crabs in a zone is counted against the PSC limit for that zone, but the bycatch of halibut anywhere in the BSAI management area is counted against the primary and secondary halibut PSC limit. These PSC limits are:

200,000 red king crabs applicable to Zone 1;

1,000,000 *C. bairdi* Tanner crabs applicable to Zone 1;

3,000,000 *C. bairdi* Tanner crabs applicable to Zone 2;

4,400 mt of Pacific halibut (primary PSC limit); and

5,333 mt of Pacific halibut (secondary PSC limit).

Amendment 16 authorizes the apportionment of each PSC limit into PSC allowances that are assigned to specified bottom-trawl fisheries. For 1991, four bottom-trawl fisheries are identified to receive PSC allowances. At its December 1990 meeting, the Council adopted the PSC allowances in Table 4 of this notice, based on the currently anticipated bycatch of crabs and halibut during the 1991 fishing year. Differences between these PSC allowances and those proposed (55 FR 49311, November 27, 1990) reflect differences between the proposed and final groundfish specifications in Table 1.

TABLE 4.—FINAL 1991 PROHIBITED SPECIES CATCH ALLOWANCES

Fisheries	Zone 1	Zone 2	Zones 1+2H Primary	BSAI-wide Secondary
Red King Crabs, number of animals:				
DAP flatfish	40,000			
DAP rocksole	150,000			
DAP turbot	0			
DAP other	10,000			
C. bairdi Tanner Crabs, number of animals:				
DAP flatfish	100,000	825,000		
DAP rocksole	700,000	300,000		
DAP turbot	0	50,000		
DAP other	200,000	1,825,000		
Pacific Halibut, metric tons:				
DAP flatfish			666	800
DAP rocksole			908	1,100
DAP turbot			165	200
DAP other			2,667	3,233

Herring

The Council has approved Amendment 16A to the FMP and has submitted it to the Secretary for review. If approved and implemented as recommended by the Council, Amendment 16A would establish a PSC limit of herring and PSC allowances for specific fisheries. Proposed and final PSC allowances will be published in the proposed and final rule notices that will implement Amendment 16A, if approved by the Secretary. Therefore, this final notice of initial specifications does not specify herring PSC allowances. If approved and implemented in 1991, the bycatch of herring in groundfish fisheries will be counted against the specified herring PSC allowances from the beginning of the fishing year.

Seasonal apportionments of PSC limits

Amendment 16 to the FMP also provides authority to establish seasonal apportionments of bycatch PSC allowances among the fisheries to which bycatch has been apportioned. No seasonal apportionments were proposed in the preliminary specifications. However, during its December 1990 meeting, the Council recommended a seasonal apportionment of the halibut PSC allowance to the "DAP Other" fishery as in Table 5.

TABLE 5.—FINAL ALLOCATION OF THE 1991 PSC ALLOWANCE OF HALIBUT TO THE "DAP OTHER" FISHERY (PRIMARY AND SECONDARY PSC AMOUNTS IN METRIC TONS)

Quarter	Percent	Primary	Secondary
January 1–March 31	45	1,200	1,455
April 1–June 30	40	1,067	1,293
July 1–September 29	15	400	485
September 30–December 31	remainder	remainder	remainder
Total		2,667	3,233

The purpose of this seasonal apportionment of the halibut PSC allowance is to assure some fishing opportunity for pollock and Pacific cod using bottom-trawl gear in the second and third quarters of the year. In 1990, the bottom-trawl fishery for pollock and cod was closed in Zones 1 and 2H on May 30, and in the entire BSAI management area on June 30, with a substantial portion of the TACs for cod and Aleutian Islands pollock unharvested because the PSC allowance to the "DAP Other" fishery was caught. The Council's recommended seasonal apportionment of the halibut PSC allowance is intended to allow an increased amount of the pollock and cod TAC to be harvested by preventing the entire PSC allowance from being harvested in any one quarter if halibut bycatch rates are high.

In making its recommendation for seasonal allowances of the halibut bycatch apportionment to the "DAP Other" fishery, the Council adopted the recommendations presented by an ad hoc AP workgroup. This workgroup considered and balanced a variety of factors. In particular, it noted that bycatch regulations (at § 675.21) in 1990 had a severe impact on the bottom-trawl fishery for Pacific cod. With the start of the 1991 flatfish fishing season delayed until May 1 (56 FR 384, January 4, 1991), Pacific cod is expected to be more important as a target fishery early in the year than it was in 1990. Also, Pacific cod is most vulnerable to trawl gear early in the year. The workgroup assumed that the halibut bycatch apportionment would constrain the "DAP Other" fishery based on experience in 1990, although no quantitative estimate of this constraint can be made because of the unknown but expected lowering of bycatch rates due to the vessel incentive program to be implemented under Amendment 16. The bottom-trawl fishery for Pacific cod could produce the largest economic return by fishing the resource early in the year. Consequently, the workgroup recommended that most of the halibut PSC allowance be made available in the first two quarters. A small amount (15 percent) was recommended to be reserved for the second half of the year to ensure that there will be some opportunity for harvesting Pacific cod with bottomtrawl gear at that time if the TAC for Pacific cod remains unharvested. The Council adopted the recommendations of this workgroup as an effective balance of the interests affected by the "DAP Other" halibut PSC allowance.

In reviewing and adopting the Council's recommended seasonal apportionment of the halibut PSC allowance to the "DAP Other" fishery, the Secretary considered seven types of information specified at § 675.21(b)(2) as follows:

1. The biomass trends and distribution of halibut are summarized in appendix A of the SAFE report dated November 1990 and in other scientific documents of the International Pacific Halibut Commission;

2. The seasonal distribution of pollock and Pacific cod are described in the SAFE report dated November 1990 and other NMFS documents;

3. The expected halibut bycatch by the "DAP Other" fishery is based on historical bycatch rates presented in appendix C of the SAFE report dated November 1990;

4. The expected variations in bycatch rates throughout the year are based on the same data referenced in item 3;

5. The expected changes in groundfish fishing seasons include the establishment of roe and non-roe seasons for pollock (56 FR 492, January 7, 1991), and the delay of directed fishing for flatfish species except rock sole until May 1 (56 FR 384, January 4, 1991).

6. The expected start of fishing effort for pollock and Pacific cod is January 1; and

7. The economic effects of seasonal apportionments of the halibut PSC allowance are expected to be positive as more pollock and Pacific cod may be harvested with non-pelagic gear than otherwise would be possible without the seasonal apportionments. No data are available to quantify the marginal benefit of this action.

Groundfish

No PSC limits for groundfish species are specified in this notice. Amendment 12 to the FMP (54 FR 18519, May 1, 1989) provides for annual specification of PSC limits for groundfish species or species groups for which the TAC can be completely harvested by domestic fisheries. In practice, these PSC limits apply only to JVP and TALFF fisheries for species that have a zero JVP or TALFF appointment. No groundfish PSC allowances are specified in this action since the TACs of groundfish are anticipated to be harvested entirely by DAP fisheries and no part of the TAC of any species is made available to

directed fishing by JVP or foreign fisheries.

Comments and Responses

One letter of comment was received on the proposed 1991 specifications published November 27, 1990 (55 FR 49311). A summary of this comment and response follows.

Comment: Nine points are made as follows: (1) Any limitation of the pollock roe season will decrease the economic return from the fishery because the value of pollock per metric ton is higher during the roe season than at any other time of the fishing year; (2) a limit on the roe season will encourage unnecessary capitalization in the shore-based processing sector of the fishery; (3) the SEC stated that the entire pollock TAC could be taken during the roe season without adverse biological effects; (4) the pollock stock is adequately protected from overfishing by a TAC that is well below the ABC of pollock; (5) there is no connection between the pollock apportionment and protection of Steller sea lions; (6) there is no need to collect fishery data from the pollock fishery later in the fishing year after conclusion of the roe season; (7) the limitation on roe-season harvests of pollock will result in a greater bycatch of halibut from pollock fishing using non-pelagic gear during the non-roe season; (8) the limitation on roe-season harvests of pollock will increase the likelihood that full harvest of the pollock TAC will be prevented by closures due to attainment of bycatch limits; and (9) the limitation on roe-season harvests of pollock will increase gear conflicts between the trawl fishery for pollock and longline and pot fisheries for other species.

Response: (1) The Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR) for Amendments 19 and 14, dated July 20, 1990, indicated that a prohibition on fishing pollock during the roe season could reduce the wholesale value of the DAP pollock fishery by about $35 million, assuming the same catch as that reported for 1989. This is not the action being taken for 1991. In fact, the 1991 roe-season allowance of 441,500 mt is about 12 percent greater than the actual DAH harvest of pollock in the first 4 months of 1989 and about 10 percent greater than the actual harvest during the roe season in 1990. Relative to the roe-season harvests of pollock in 1989 and 1990, the roe-season allowance for 1991 would appear likely to increase, not decrease, the economic return from the fishery. The 1991 roe-season allowance could result in a decrease in economic return if a significant increase in fishing effort resulted in all or most of the pollock TAC being harvested within the roe season. The extent of this potential decrease is speculative since an increased supply of pollock roe may decrease its market value. Given a significant increase in fishing effort, the Secretary intends to prevent the possibility that all or most of the pollock TAC will be harvested in the roe season by implementing the Council's recommended roe-season catch allowance. Any potential decreased revenues or increased costs that result from this action are necessary to meet the objectives of Amendment 14.

(2) Excessive fishing and processing capacity, regardless of whether it is shore-based or at-sea, stems from olympic-style fisheries harvesting a limited fish resource and is a problem that neither Amendment 14 nor this action attempts to solve.

(3) The potential biological effects of intensive fishing mortality during the roe-bearing season are arguable. NOAA is aware of no marine or fishery biologist who would state categorically that such fishing has no biological effect. Lack of statistically significant evidence of a perturbation within a population of animals is not the same as no effect. This is consistent with SSC reports stating that there is no evidence of biological harm. The EA/RIR discusses some of the hypothetical impacts on stock productivity. Potentially, an intensive roe season harvest could alter the reproductive capacity of the stock by affecting either spawning success or the sex composition of the stock. The effect of fishing mortality on future recruitment of young fish to the harvestable population depends on the relationship between the spawning population and recruits. Another potential impact of concentrated fishing mortality is localized depletion of discrete stocks. Unfortunately, current information on pollock population dynamics is insufficient to define beyond question a stock-recruitment relationship, all the factors affecting recruitment, and specific localized stock boundaries. In view of this uncertainty about the long-term effects of an intensive pollock fishery, limiting the amount of pollock that may be harvested during the roe season to historical levels is a prudent management measure.

(4) NOAA agrees that specification of the TAC of pollock below its ABC will help protect the pollock resource from overfishing as defined by the Council in Amendment 16 to the FMP. Managing the fishery to prevent its exceeding the TAC does not, by itself, ensure its long-term protection from the potential negative impacts of an intensive roe-season harvest as described above in response to item 3.

(5) Research at the NOAA National Marine Mammal Laboratory indicates that the recent declines in Steller sea lion abundance in Alaska may be linked, in part, to changes in either the quality or quantity of prey species available. It has been hypothesized that pollock roe fisheries and other pollock fisheries may be contributing to these declines. This hypothesis has not been tested, and there is insufficient evidence either to link population declines of northern sea lions in prey availability or to link the size of the roe fishery as opposed to the size of the pollock fishery to prey availability. Data also are insufficient regarding the interactions of the pollock roe fishery on other marine mammals. In view of the Steller sea lions recently being listed as "threatened" under terms of the Endangered Species Act, NOAA considers a limitation on the size of the roe-season harvest of pollock to be a prudent management measure to prevent possible declines in the pollock resource caused by unrestricted harvests during the roe season.

(6) Biological data from a fishery operating over a broad time period involving more than one season reveal better information about the stock structure of the species being harvested than data from a relatively short, intensive fishery.

(7) and (8) NOAA is aware that limiting the roe-season harvest of pollock establishes a larger non-roe-season harvest than may otherwise occur. During the non-roe season, pollock frequently are harvested with bottom-trawl gear that also catches prohibited species, such as halibut, with limits that may effect fishery closures before the target species TAC is fully harvested. This will not be a serious problem if fishermen are vigilant in avoiding high bycatch rates of prohibited species by fishing in ways that minimize their bycatch rates. Fishermen can use pelagic gear, which is not vulnerable to closures due to attainment of PSC allowances, to catch pollock during the non-roe season. NOAA notes that non-pelagic gear was prohibited everywhere in the BSAI management area to harvest pollock on June 30, 1990, because the halibut PSC allowance for the "DAP Other" fishery was attained. This event did not constrain the DAP pollock fishery from reaching its pollock catch limit before the end of the fishing year. In addition,

NOAA is considering refinements to the bycatch management regime, including an incentive program, under Amendment 16 to the FMP.

(9) Gear conflicts between trawl and fixed-gear types may increase in the future. These conflicts will result from increased crowding on the fishing grounds because of an increased number of vessels or an increased amount of fixed gear being set by longline fishermen, not from a limitation on the amount of pollock that may be harvested during the roe season. As indicated above, the specified roe-season harvest limit, as a proportion of the total catch, is not substantially different from the long-term average amount of pollock harvested during the roe season. If the number of fishing vessels competing for all groundfish resources during the non-roe season were to remain unchanged, an increase in gear conflicts at that time is unlikely; however, new vessels with greater fishing power are constantly entering the fishery. An increase in gear conflicts during the non-roe season will more likely result from expanding fishing capacity competing for a limited fish resource than from this seasonal allocation of pollock. Excessive fishing capacity is a problem that neither Amendment 14 nor this action attempts to solve.

Classification

This action is authorized under 50 CFR 611.93(b) and 675.20 and complies with Executive Order 12291.

List of Subjects

50 CFR Part 611

Fisheries, Foreign relations.

50 CFR Part 675

Fisheries.

Authority: 16 U.S.C. 1801 *et seq.*

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Michael Tillman,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

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